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EXAMINER

MITCHELL, JASON D

ART UNIT	PAPER NUMBER
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2193

NOTIFICATION DATE	DELIVERY MODE
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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/782,980	Applicant(s) NARAYANASWAMY ET AL.	
	Examiner JASON MITCHELL	Art Unit 2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6,8-18 and 21-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6,8-18 and 21-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/12/09</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is in response to a request for continued examination filed on 11/03/09.

Claims 1-6, 8-18 and 21-23 are pending in this application.

Response to Arguments

Applicant's arguments filed 11/03/09 have been fully considered but they are not persuasive.

In the first full par. on pg. 9, the applicants state:

For example, the proposed BEA-Aigen combination does not disclose, teach, or suggest "using a universal deployment tool to dynamically load an application server plugin to perform cluster deployment on the type of application server" and "automatically, and without user input, using the dynamically loaded application server plugin to generate a script to use a specific utility of the application server for generation of deployment descriptors from the type information retrieved from the deployment server, the deployment descriptors suitable for the type of application server," as recited in Claim 1. In the Office Action, the Examiner acknowledges that BEA does not disclose generating the script for generation of deployment descriptors and instead relies upon Aigen. (Office Action, page 5). Applicants submit, however, that Aigen does not disclose the above-identified claim elements.

It is respectfully noted that the limitations added with this amendment (i.e. "using a universal deployment tool to ... load a plugin") do not, by themselves describe any significant functionality to the claims. First, the term "universal deployment tool" is understood to only be a label, defined by the applicants, to describe the otherwise claimed functionality. As such, the "universal deployment tool" language is met by any reference or combination of references which disclose or teach the other limitations of the claims. Further, the term "plugin" is understood to refer, generically, to the use of

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one of a number of specific known architectures defining interfaces which will allow program logic to be dynamically loaded into an application. While these architectures do require some specific loading and/or communication functionality, this functionality is largely immaterial to the function provided by the plugin (in this case generating a script). More importantly, as shown by US 6,871,345 to Crow et al. such architectures were known in the prior art.

In the par. bridging pp. 9 and 10, the applicants state:

Rather, Aigen merely discloses that a Bean Grinder is invoked to convert database files to Enterprise JAVA Beans. (Aigen, Column 3, lines 42-46; Column 2, lines 63-65). Specifically, Aigen discloses that Bean Grinder Frame 41 "gathers data from the user as to how the Bean Grinder is to function." (Aigen, Column 3, lines 65-67). Thereafter, the "Bean Grinder communicates with a specified database and reads the meta-data thereof as shown at 61 and an EJB Bean File 62 creates JAVA files for each table" to be converted into the Java Beans. (Aigen, Column 4, lines 1-3). With regard to the generation of deployment descriptors, Aigen merely discloses that "a descriptor file 63 (DescriptorFile) generates an XML deployment descriptor. (Aigen, Column 4, lines 6-14). Thus, Aigen is limited to a Bean Grinder for converting a database file into a EJB Bean file using generated XML deployment descriptors. There is no disclosure in Aigen of "using a universal deployment tool to dynamically load an application server plugin to perform cluster deployment on the type of application server" or of using such a dynamically loaded application server plug-in to "automatically, and without user input,..., generate a script to use a specific utility of the application server for generation of deployment descriptors from the type information retrieved from the deployment server, the deployment descriptors suitable for the type of application server," as recited in Claim 1.

The examiner respectfully disagrees. Aigen discloses automatically, without user input (col. 3, lines 50-54 "it may be desirable for the step Run Batch Command File to Generate EJB files 70 and Run Batch Command File to Deploy EJB Jar "n Application Server 80 to be ... executed without further operator intervention"), generate a script to use a specific utility of the application server for generation of deployment descriptors

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(col. 3, lines 50-54 "Run Batch Command File to Generate EJB files 70"). As discussed above the 'universal deployment tool' and 'dynamically load an application server plugin' language of the claims does not patentably distinguish the claims from this disclosure.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 8-18 and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over "BEA WebLogic Portal Deployment Guide" version 4.4 (BEA) in view of US 7,080,361 to Aigen (Aigen) in view of US 6,871,345 to Crow et al. (Crow).

Regarding Claims 1 and 11: BEA discloses a method of automatically deploying program units to a cluster of networked servers, comprising:

assembling one or more program units for deploying to a cluster of one or more application servers (*pg. 4-2 "assemble a Web application"*);

retrieving information related to the cluster of networked servers from a deployment server (*bridging pp. 6-11 – 6-12 "Change the value of the <param-value> ... to match the ... listen ports of the proxy server"*; note the listen port information must

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have been retrieved; also note pg. 6-2 1st par. “the host ... contains the physical files that describe the cluster, enterprise application, and other supporting services”;

using a universal deployment tool to perform cluster deployment on the type of application server (pg. 6-18 “Deploy Your Web Application ... to the Cluster”);

generating, using dynamically loaded application server logic, deployment descriptors from the information retrieved from the deployment server (bridging pp. 6-11 – 6-12 “Change the value of the <param-value> ... to match the ... listen ports of the proxy server”; pg. 4-5, 1st par. “two deployment descriptors: web.xml ... and weblogic.xml”); and

deploying the one or more program units to the cluster of the one or more application servers using at least the deployment descriptor (pg. 6-18 “Deploy Your Web Application ... to the Cluster”).

BEA does not explicitly disclose retrieving ‘type’ information related to the cluster of networked servers and automatically generating a script to use a specific utility of the application server for development of deployment descriptors suitable for the type of application server.

Aigen teaches retrieving type information of an application server (*col. 3, lines 40-42 “The user then specifies (50) the application server on which the application will be run.”*) and automatically generating, using the dynamically loaded application server logic, a script to use a specific utility of the application server (*col. 3, lines 44-49 “the*

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batch command file to generate the EJB file 70 ... another batch command file to deploy the EJB Jar ... file in the application server 80") to generate deployment descriptors suitable for the type of application server (col. 5, lines 1-5 "vendor specific XML deployment file generation 1100").

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Aigen's automated, application server specific, deployment descriptor generation functionality (e.g. col. 4, line 63-col. 5, line 5) into BEA's deployment facility (pg. 6-11, last par. "Before you deploy your application, configure your Web application"). Those of ordinary skill in the art would have been motivated to do so to ease workload and avoid errors (Aigen col. 3, lines "reduces days or weeks ... to minutes ... eliminates the error-prone job"; BEA pg. 6-22 1st full par. "Because the commands ... are long and prone to typographical errors, we recommend that you use scripts")

BEA and Aigen do not explicitly teach the application server code is an application server plugin.

Crow teaches an application server plugin (col. 12, lines 34-44 "server plugin 143 for extending an application at the server 117").

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement Aigen's application server logic (*col. 3, lines 44-49 "the batch command file to generate the EJB file 70 ... another batch command file to deploy the EJB Jar ... file in the application server 80"*) in BEA's universal application deployment tool (*pg. 6-18 "Deploy Your Web Application ... to the Cluster"*) as a plugin as taught by Crow (*col. 12, lines 34-44 "server plugin 143 for extending an application at the server 117"*). Those of ordinary skill in the art would have been motivated to do so a known and implementable method of performing the disclosed functionality which would have produced only the expected results (e.g. BEA *pg. 6-18 "Deploy Your Web Application ... to the Cluster"*; Aigen *col. 3, lines 44-49 "the batch command file to generate the EJB file 70 ... another batch command file to deploy the EJB Jar ... file in the application server 80"*).

Regarding Claims 2 and 12: The rejections of claims 1 and 11 are incorporated respectively; further BEA discloses creating naming and directory interface binding files (*pg. 4-23 "The weblogic.xml file must specify the JNDI names for each EJB"*).

Regarding Claim 3: The rejection of claim 1 is incorporated; further, as noted in the rejection of the parent claim it would have been obvious to automate the retrieval of information related to the one or more application servers in the cluster (*bridging pp. 6-11 – 6-12 "Change the value of the <param-value> ... to match the ... listen ports of the proxy server"*; note the listen port information must have been retrieved; also note *pg. 6-*

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2 1st par. *“the host ... contains the physical files that describe the cluster, enterprise application, and other supporting services”*).

Regarding Claims 4, 6 and 18: The rejections of claims 3, 5 and 17 are incorporated; further BEA discloses dynamically allowing a user to select from the one or more application servers (pg. 6-19 item 4.d. *“Move your cluster from the Available to the Chosen list and click Apply”*; pg. 3-30 *“Web application targeted to a ... virtual host”*).

Regarding Claim 5: The rejection of claim 1 is incorporated; further BEA discloses the retrieving comprises:

retrieving information related to one or more virtual hosts in the cluster
(pg. 3-30, 1st par. *“application targeted to a ... virtual host”*).

Regarding Claim 8: The rejection of claim 1 is incorporated; further BEA discloses the assembling further comprises providing a user interface to gather information from a user about the one or more program units being deployed (pg. 4-2 *“This topic describes how to assemble a Web application ... This topic includes ... Create and Populate a Directory Tree”*).

Regarding Claim 9: The rejection of claim 1 is incorporated; further BEA discloses the cluster of networked servers includes at least an application server and one or more clones of the application server (pg. 6-2, 1st par. *“In any WebLogic Server cluster, the*

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host for the Administration Server is the only computer that contains the physical files that describe the cluster").

Regarding Claim 10: The rejection of claim 1 is , further including allowing re-deploying of already deployed one or more program units to the cluster (pg. 7-23 item 2 "update existing files").

Regarding Claim 13: BEA discloses a system automatically deploying program units to a cluster of networked servers, comprising:

an application server cluster comprising a set of a plurality of application servers, each application server running on a different host machine that comprises a processor (pg. 6-18 "*Deploy Your Web Application ... to the Cluster*"); and

a network deployment server running on a deployment processor in communication with the application server cluster, the processor running the at least one network deployment server (pg. 6-2, 1st par. "the Administration Server host") comprising:

data source management module operable to retrieve data source information from at least one data store, the data source information related to an application server to which to deploy one or more program units (pg. 6-2, 4th bullet "*The E-Business Control Center deploys data to an additional synchronization server*");

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cluster management module operable to retrieve cluster information from the at least one data store, the cluster information related to the application server (pg. 6-2, 1st par. "If you want to modify the cluster ... configuration, you do so from the Administration Server host"); and

container management module operable to:

retrieve container information from the at least one data store, the container information related to the application server (*bridging pp. 6-11 – 6-12 "Change the value of the <param-value> ... to match the ... listen ports of the proxy server"; note the listen port information must have been retrieved; also note pg. 6-2 1st par. "the host ... contains the physical files that describe the cluster, enterprise application, and other supporting services"*); and

use a universal deployment tool to perform cluster deployment on the type of application server (pg. 6-18 *"Deploy Your Web Application ... to the Cluster"*);

generate deployment descriptors from the information retrieved container information (*bridging pp. 6-11 – 6-12 "Change the value of the <param-value> ... to match the ... listen ports of the proxy server"; pg. 4-5, 1st par. "two deployment descriptors: web.xml ... and weblogic.xml"*);

wherein the data source information, cluster information, container information, and deployment descriptors are used to automatically deploy the one or more program

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units to the plurality of application servers (pg. 6-18 *"Deploy Your Web Application ... to the Cluster"*).

Aigen teaches retrieving type information of an application server (col. 3, lines 40-42 *"The user then specifies (50) the application server on which the application will be run."*) and automatically, using the dynamically loaded application server logic to generate a script to use a specific utility of the application server (col. 3, lines 44-49 *"the batch command file to generate the EJB file 70 ... another batch command file to deploy the EJB Jar ... file in the application server 80"*) to generate deployment descriptors suitable for the type of application server (col. 5, lines 1-5 *"vendor specific XML deployment file generation 1100"*).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Aigen's automated, application server specific, deployment descriptor generation functionality (e.g. col. 4, line 63-col. 5, line 5) into BEA's deployment facility (pg. 6-11, last par. *"Before you deploy your application, configure your Web application"*). Those of ordinary skill in the art would have been motivated to do so to ease workload and avoid errors (Aigen col. 3, lines *"reduces days or weeks ... to minutes ... eliminates the error-prone job"*; BEA pg. 6-22 1st full par. *"Because the commands ... are long and prone to typographical errors, we recommend that you use scripts"*)

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BEA and Aigen do not explicitly teach the application server code is an application server plugin.

Crow teaches an application server plugin (*col. 12, lines 34-44 "server plugin 143 for extending an application at the server 117"*).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement Aigen's application server logic (*col. 3, lines 44-49 "the batch command file to generate the EJB file 70 ... another batch command file to deploy the EJB Jar ... file in the application server 80"*) in BEA's universal application deployment tool (*pg. 6-18 "Deploy Your Web Application ... to the Cluster"*) as a plugin as taught by Crow (*col. 12, lines 34-44 "server plugin 143 for extending an application at the server 117"*). Those of ordinary skill in the art would have been motivated to do so a known and implementable method of performing the disclosed functionality which would have produced only the expected results (e.g. BEA *pg. 6-18 "Deploy Your Web Application ... to the Cluster"*; Aigen *col. 3, lines 44-49 "the batch command file to generate the EJB file 70 ... another batch command file to deploy the EJB Jar ... file in the application server 80"*).

Regarding Claim 14: The rejection of claim 13 is incorporated; further BEA discloses a user interface module to retrieve information from a user related to one or more user

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preferences for deploying the one or more program units (*pg. 6-2, 4th bullet "The E-Business Control Center"*).

Regarding Claim 15: The rejection of claim 14 is incorporated; further BEA discloses the user interface module is further operable to allow the user to change the retrieved data source information (*pg. 7-1, 5th bullet "Monitoring and Managing Data Repositories"*).

Regarding Claim 16: The rejection of claim 14 is incorporated; further BEA discloses the user interface module is further operable to allow the user to select a target cluster from the retrieved cluster information, to which to automatically deploy the one or more program units (*see e.g. Fig. 6-6 on pg. 6-20*).

Regarding Claim 17: The rejection of claim 1 is incorporated; further BEA discloses retrieving information related to one or more virtual hosts in the cluster (*pg. 3-30, 1st par. "application targeted to a ... virtual host"*).

Further, it would have been obvious to automate this functionality as discussed in the parent claim.

Regarding Claims 21-23: The rejections of claims 1, 11 and 13 are incorporated respectively; further BEA discloses modifying deployment descriptors (*pg. 5-3, last par. "Modify application.xml ... application-config.xml"*):

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It would at least have been obvious to one of ordinary skill in the art at the time the invention was made modify Aigen's generated deployment descriptors if they required further modification to function properly.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON MITCHELL whose telephone number is (571)272-3728. The examiner can normally be reached on Monday-Thursday and alternate Fridays 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bullock Lewis can be reached on (571) 272-3759. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jason Mitchell/
Primary Examiner, Art Unit 2193